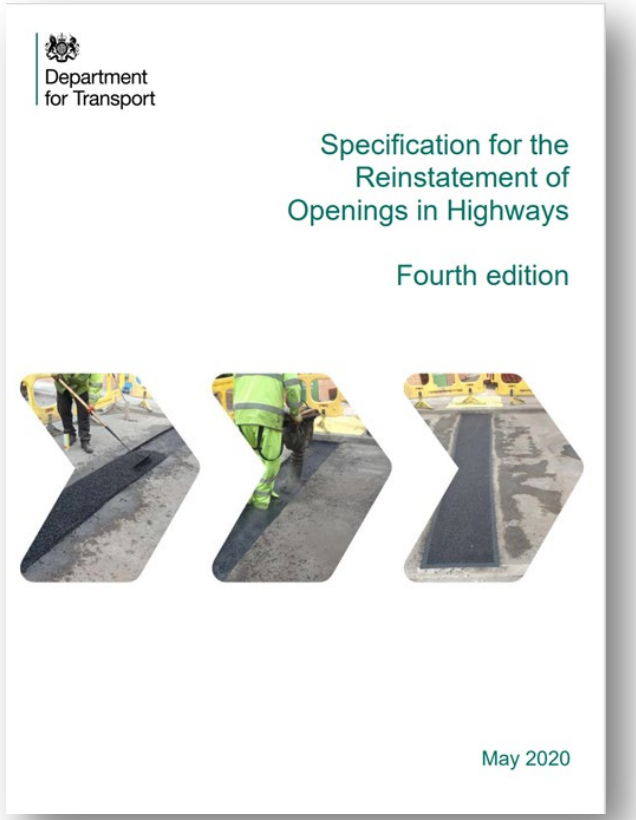
S1 – Operational Principles



Researched, compiled and produced by corehard and ENFIELD Council with support through TFL lane rental funding scheme

Introduction- SROH S1

This advisory document is designed to assist incoming and existing Inspectors as support and refresher material. It will be provided in simple language to aid in understanding and avoiding technical or descriptive explanation.

The current edition (Ed 4) of the Specification for Reinstatement of Openings in the Highway (SROH) has been updated to assist readers in understanding, and introduce new methods and developments within street-works.

Remember, the SROH applies to works undertaken on carriageway's, footway's and verge's maintained at public expense (not private roads or land).

You will now be taken through the key items within S1 which will enable you to have a better understanding of operational principles and changes such as, the new definition of a small opening.

Please note:
This presentation is simply to aid in understanding of the SROH and should not be used for any other purpose. The simplicity of language may detract from certain technical or descriptive requirements and, therefore, the SROH should be consulted for clarity.

S1 Operational Principles

S1.1 General

The operational principles tell you what is expected from the SROH for things like what materials and standards apply and informs that the code must be complied with. It also states that correct methods of reinstatement will be used and what guarantee is to be provided.
Interim reinstatements have to meet performance requirements of a permanent reinstatement so the road user is not unduly affected (by edge depression, surface depression, skid resistance, white and yellow lines, etc.). If the reinstatement does not comply with the code, then remedial actions will be required to put right. This will only apply to roads that are maintained at public expense (not privately owned roads).

What it means

An interim (temporary) reinstatement may include alternative materials which still have to meet all the requirements for performance and safety. On the public highway, if a reinstatement fails any of the performance requirements within the guarantee period, the undertaker will be required to carry out remedial works to rectify and bring back to required standard.

Spray paint is not allowed for white and yellow road marking unless it contains required reflectivity.

Paint with required reflectivity must applied even where the reinstatement is classed as interim

The code of practice is a statutory code essentially stating it is a legal requirement to ensure reinstatements are safe and compliant. Where this is not achieved, it may be deemed as evidence that the reinstatement is causing an offence under the New Roads and Street Works Act 1991.

PLEASE NOTE

S1 Operational Principles

Guarantee period

What is the guarantee period and when does it start?

The guarantee is for two years from completion of permanent reinstatement *(or three years if it is above a deep opening)*.

Does that mean it starts once the registration notice has been submitted?

No! It starts from when the permanent reinstatement has been completed, and not when the notice is submitted.

Are you sure?

Oh yes!
However, the registration notice submission date might be days after the actual finish date. The finish date must be entered onto the registration notice which records the start of guarantee period

What happens for an interim reinstatement?

An interim reinstatement must comply with the requirements of the SROH until the permanent is completed. Essentially, the interim must meet all performance requirements as stated in S2 of the SROH.

What does that mean?

Things like edge depression, surface depression, skid resistance and any other requirement stated under S2 of the SROH have to conform. In other words, the interim reinstatement should act as a full reinstatement, even the white or yellow lines must be in place and comply for road user safety.

The only thing different is that the guarantee period will not start until the permanent reinstatement has been completed.

When it is discovered at any time that the reinstatement does not conform to a requirement within this code, <u>other than those detailed in S2</u>, then remedial works must be assessed in accordance with S12. In this case the guarantee period will not commence until the remedial works have occurred.

S1.1.5 SROH – Ed4

PLEASE NOTE

In other words, if it does not comply with the SROH specification, the guarantee period will not start.

S1 – Operational Principles

Guarantee Period

REMEMBER

If works are required to correct an issue identified under SROH Section 2 (edge depression, surface depression, crowning, texture depth, etc.) the guarantee does not re-start and remains from the original date of permanent reinstatement completion.

It is only when re-excavation of works has occurred as a result of investigation or corrective action that a new guarantee starts.

It is also import to note, if the reinstatement was later revealed as not compliant with the SROH in the first instance *(minimum layer values, incorrect materials, etc.),* the guarantee period will not have started.

The guarantee cannot start until the reinstatement conforms to the requirements of the SROH.

S1 Operational Principles
Road Categories

What it says in the SROH

S1.3.1 There are five categories of road, each with a limiting capacity expressed in millions of standard axles (msa) as shown in Table S1.1.

What is a Standard Axle?

An axle exerting or applying a force of 80kN. The structural wear associated with each vehicle increases with increasing axle load.
The road design and construction is increased where there is more traffic.

Table S1.1 Road categories

Road category	Traffic capacity
Type 0	Roads carrying over 30 to 125 msa
Type 1	Roads carrying over 10 to 30 msa
Type 2	Roads carrying over 2.5 to 10 msa
Type 3	Roads carrying over 0.5 to 2.5 msa
Type 4	Roads carrying up to 0.5 msa

Does this mean a road category is based on the vehicle wheel axles that will travel over it?

Exactly… you've got it!

If traffic is increasing how often is it assessed?

According to the SROH, at least three assessments over a three year period.

What it says in the SROH

S1.3.5 - The reinstatement must be designed using materials specified in A1, A2, A9 and A10. The overall layer thickness must be as specified in A3 to A7 for the various categories of road, footway, footpath, cycle track, verge or unmade ground, and must be compacted to the requirements of S10 and A8.

Simple rule: More vehicle axles = thicker road construction layers

PLEASE NOTE

So if I excavate and reinstate in a road I have to know the category it falls under?

Yes, and you will also need to apply the correct materials and reinstatement method for the road class. The SROH will help with this when you know the category.

What do you mean?

There are different kinds of road construction which are; flexible, composite and rigid.
The SROH will provide the correct method and materials to be used for the road category you are working in.

S1 Operational Principles
Footway, footpath & cycle track categories

Categories

There are essentially three categories of footway, footpath and cycle track:

1. **High duty – where heavy pedestrian or cycle traffic is likely**
2. **High amenity – Where it enhances the locality through special materials and designs**
3. **Other – Essentially, all other usual footways**

Example of high duty footway outside Kings Cross Station, London

I guess this is a normal footway?

Yes, exactly

.. and this is a high amenity footway in Southend.

What it says in the SROH

S1.4.4 Where an authority can demonstrate that a high duty or high amenity footway, footpath or cycle track has been constructed and maintained to a standard in excess of that prescribed in S2.2 to S2.5 (and registered accordingly) the reinstatement must meet the authority's standard of maintenance and their declared intervention criteria.

What it means

Where local authorities have high duty or high amenity areas they should provide specification and information for construction purposes. In these areas, the local authority may have a higher specification than required in the SROH which may include tighter intervention limits. These requirements must be adhered to where such information has been made available.

HINT

If it looks like high amenity or high duty, check for any specification requirements

S1 Operational Principles
Excavation and trench categories

What it says in the SROH

S1.5 Excavation and trench categories

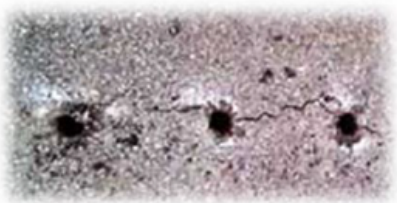
Excavations and trenches are categorised as follows:
S1.5.1 Large diameter core – a core over 150 mm in diameter.
S1.5.2 Micro trench – an opening up to 60 mm wide and over 1 m long.
S1.5.3 Narrow trench – an opening over 60 mm and up to 300 mm wide and over 1 m long.
S1.5.4 Small openings – an excavation that is none of the above, with a reinstatement surface area, excluding the apparatus surface area, up to:
1) 2 m² in road types 0, 1 and 2; or
2) 4 m² in road types 3 and 4 and in footways, footpaths and cycle tracks.

S1.5.5 Other openings – any excavation or trench that is none of the above (S1.5.1 to S1.5.4).
S1.5.6 Deep opening – any of the above (S1.5.1 to S1.5.5) where the depth of cover over apparatus is greater than 1.5 m but not including openings with a depth of cover intermittently greater than 1.5 m over lengths of less than 5 m.

What it means

Over the past few years new methods of excavation and reinstatement have been introduced which are now added to the SROH.
Large diameter cores and micro-trenches are evidence of this.
"Other openings" will capture any other type of breaking the surface used for works purposes.
Deep openings apply where the depth of apparatus is consistently over 1.5m and should be regularly checked to ensure it is over 5m in length.
This is important, as the guarantee period will increase to three years where this occurs.

It should be noted that cores or openings smaller than 150mm which are taken for works purposes (i.e. they are part of the works) are to be considered under "Other openings".



Gas sniffer holes (excavation)

Test holes or cores less than 150mm in diameter are not classed as excavations (S11.6). They are purely for testing purposes and not for works purposes as mentioned above.

Core test hole (not excavation)